SOKKIA

GRX2
GNSS Receiver

Ultimate in Versatility

Scalable - Affordable - Triple Wireless Technologies

Sokkia GRX2 has been enhanced with the latest GNSS chipset technology, providing 226 channels and superior antenna quality. Both RTK and Static operations will be completed with increased productivity. The GRX2 provides unmatched usability and versatility that guarantees to increase productivity.

GRX2 GNSS Receiver

The GRX2 receiver is a fully integrated dual constellation receiver, antenna, radio, and optional cellular modem. In addition, the integrated *Bluetooth*® module, now enhanced for better performance, is designed into a rugged magnesium alloy body.

Fully Scalable Architecture

The GRX2 can be re-configured with scalable upgrades. The GRX2 can be purchased as a single frequency GPS only receiver at a low cost and later upgraded to dual frequency, add a radio or cellular modem, and additional signal capability for GLONASS and Galileo.

226 Channels for GPS, GLONASS, and Galileo Signals

- 226 tracking channels with Universal Tracking Technology
- Programmable channels for tracking available signals
- Supports SBAS, QZSS, QLL

Triple Wireless Technologies Inside

Three commonly-used wireless technologies can be integrated into the GRX2 receiver.

- Digital UHF Modem (receiver/transmitter): for RTK base and rover
- GSM/HSPA Modem: for network RTK, and MAGNET Relay
- *Bluetooth*® Modem: for controller and other PC

Maximum Versatility in RTK Applications

Utilizing full wireless connectivity and voice navigation system, the GRX2 facilitates the use of both RTK and network RTK technologies.

- Built-in GSM/HSPA modem makes the GRX2 an ideal rover receiver for network RTK positioning.
- Can be used for both private RTK base and RTK rover using an internal digital UHF modem without any extra device.
- MAGNET Relay Ready - Cellular to Cellular base/rover RTK.
- Voice messages notify the users when RTK is fixed or lost, or other problems occur.

- **Fully Scalable**
- **226-channel GPS+GLONASS+Galileo**
- **Integrated UHF+Cellular+*Bluetooth*®**
- **Voice Navigation**
- **Compact, Watertight and Rugged**

Other Hardware Features

- 22 status LED displays are exceptionally viewable even under bright sunlight.
- Data storage in popular SD/SDHC cards.
- IP67 dust/water protection.
- One detachable battery powers the receiver for up to 6 hours in RTK usage with UHF radio communication.
- The BDC70 Li-ion battery can be used for Sokkia total stations and digital levels.

Data Collectors

The GRX2 has built-in internal *Bluetooth*® that allows the user to choose their data collector model and software. This open architecture allows more choice for the user to use the style data collector that they prefer. Whether it is a small palm-sized screen only device, or a larger screen handheld, or even a field visible laptop, the GRX2 is ready to connect.

MAGNET™ Field

MAGNET Field provides a bright, graphical user interface with large touch icons and bright readable text. Select your color scheme Black, Gold, Blue, Silver, for your best visibility.

Software

MAGNET software is tailored for use with Sokkia GNSS receivers in both field and office works.

MAGNET Enterprise

A managers dream of tracking all field and office data in one simple to access web interface. Store and exchange your field data in the Enterprise cloud. Save the drive time by sending your field and office updates to the cloud rather than driving back to the office.

MAGNET Office

Full CAD functionality with MAGNET Office Site and Topo. Or field data processing with MAGNET Office Tools inside AutoCAD® products, like Civil3D®. The MAGNET Office solution has what you need. Pick the module that fits your needs.
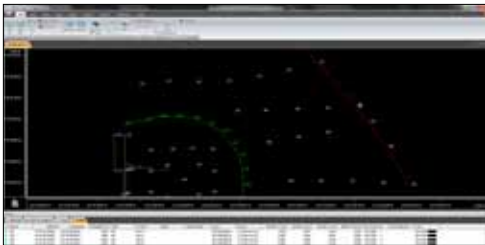
GRX2
226 Channel GNSS Receiver

Tracking Capability	
Number of Channels[*1]	226 channels
Tracked Signals	
GPS	L1 CA, L1/L2 P-code, L2C
GLONASS	L1/L2 CA, L1/L2 P-code
Galileo[*2]	E1
SBAS	WAAS, EGNOS, MSAS, QZSS
Antenna	Integrated
Positioning Accuracy[*3]	
Static	
L1 + L2	H: 3mm + 0.5ppm V: 5mm + 0.5ppm
L1 Only	H: 3mm + 0.8ppm V: 4mm + 1ppm
Fast static (L1 + L2)	H: 3mm + 0.5ppm V: 5mm + 0.5ppm
Kinematic (L1 + L2)	H: 10mm + 1ppm V: 15mm + 1ppm
RTK (L1 + L2)	H: 10mm + 1ppm V: 15mm + 1ppm
DGPS	< 0.5m
User Interface	
Operation	Single-button operation for power, receiver reset, memory initialization
Display panel	22 LED status indicators
Voice navigation	Multi-lingual voice messages for receiver status information
Data Management	
Memory	SD/SDHC card (FAT16/32 formats)
Update/output rate[*4]	1Hz, 5Hz, 10Hz, 20Hz (10Hz RTK Standard)
Communication Ports	RS-232C (4,800 to 115,200bps)
Wireless Communication	
Bluetooth® modem	V2.1 + EDR, Class 2, 115,200bps[*5]
Digital UHF II modem[*5]	Internal, receiver (RX) and transmitter (TX), 410 to 470MHz
GSM/HSPA modem[*5]	Internal
Environmental	
Dust/Water Protection	IP67 (IEC 60529:2001) at closing all connector caps. Protected against temporary immersion up to 1m (3.3ft.) depth.
Shock	6.56ft. (2m) pole drop
Operating Temperature	
GRX2 receiver	-40 to +65°C (-40 to +149°F)
BDC70 battery	-20 to +65°C (-4 to +149°F)
UHF/GSM modems	-20 to +55°C (-4 to +131°F)
Storage Temperature	-45 to +70°C (-49 to +158°F)
Humidity	100%, condensing
Physical	
Enclosure	Magnesium alloy housing
Size	Dia. 184 x H 95mm (dia. 7.24 x H 3.74 in.)
Weight	
GRX2 receiver / BDC70 battery	1.0kg (2.20 lb.) / 195g (6.9 oz.)
Power supply	
Standard battery BDC70	Detachable, Li-ion battery, 7.2V, 5240 mAh
Operating time at 20°C (68°F)	>7.5 hours in static mode w/*Bluetooth*® connection
Charger CDC68	
Recharging time	Approx. 4 hours at 25°C (77°F)
Input voltage	100 to 240V AC (50/60Hz)[*6]
External power	6.7 to 18V DC

*1 Number of channels and tracked signals vary according to receiver configurations.
*2 Support for Galileo will be available via option file upgrade when the constellation is fully operational and ready for commercial use.
*3 Accuracy depends on the number of satellites used, obstructions, satellite geometry (DOP), occupation time,
   multipath effects, atmospheric conditions, baseline length, survey procedures and data quality.
*4 1Hz standard. Higher rates available as options.
*5 Internal "UHF modem" or "UHF+Cellular modem" available as factory options. *Bluetooth*® Class 1 when connected to a Class 1 data collector.
*6 Use with an appropriate AC power cable.

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